

## **REMARKS**

### **Overview**

Claims 1, 3-6, 10 and 11 are pending in the application. No claims are being amended with the present response.

### **35 USC 103**

In the Action mailed on September 4, 2009 the Examiner rejects claims 1 and 3-6 under 35 USC 103(a) as being unpatentable over Gushko in view of Bawendi and further in view of Fuller. The Examiner also rejects claim 10 on the basis of Gushko, Bawendi and Metz. Finally, the Examiner rejects claim 11 on the basis of Gushko, Bawendi and Wenzel.

All of the above rejections of the Examiner are based on an initial combination between Glushko and Bawendi. Applicants submit that such combination is improper for the reasons that follow.

#### **1. The asserted combination between Glushko and Bawendi is improper at least because each of the combined citations teaches against the asserted combination**

Differently from what stated by the Examiner, Bawendi does not show fluorescent nanometer beads. See, for example, column 3, lines 4-12 where a clear teaching against fluorescent beads is indicated. See also column 15, line 49 where the system of Bawendi is “in contrast to fluorescently labeled probes.” Therefore, the Examiner’s statement that “Bawendi specifically discusses using fluorescent dyes to store information (column 3, lines 5-15)” is incorrect, because the passage mentioned by the Examiner is the exact passage in which Bawendi teaches against such use!

It follows that a person skilled in the art would not be motivated at all to combine a disclosure teaching against the use of fluorescently labeled probes with the “Fluorescent Optical Memory” of Glushko. As a consequence, Applicants respectfully submit that the Examiner has failed to make out a prima facie case of obviousness against independent claims 1 and 11 because the

Examiner has failed to sufficiently articulate why one of ordinary skill in the art would have been motivated to make the asserted combination.

2. Combination of Bawendi and Glushko would frustrate the principle of operation of Bawendi in contravention to MPEP 2143.01 V.

Bawendi teaches use of quantum dots on a support only for determining location and/or identity of a particular item or component of interest (Abstract). In particular, a barcode scheme is formed by way of a unique combination of quantum dots to produce a unique spectral emission that is indicative of the particular item or component of interest (column 5, lines 45-62). As a consequence, the “spectral emission” of Bawendi does not “identify presence and absence of . . . colors” and instead provides a collective luminescence information of a composition to uniquely identify or locate an item of interest. Although such collective information can be provided by quantum dots on supports, there is no teaching, in Bawendi, of singling out each support. See, for example, column 7, line 65: “After selection of a particular collection of quantum dot composition and sizes as discussed above to associate with an item of interest.” See also column 12, lines 54-56: “correlating the spectral emissions 55 to a collection of quantum dots which encode a particular item of interest.” Therefore, there is no teaching, in Bawendi, that each bead can be seen as an entity separated by the others. Even Figure 5 of Bawendi, mentioned by the Examiner, clearly shows aggregation of the various beads (hatched circles 100).

This means that the teachings of Bawendi are unsuitable for use with Glushko, where separate cells 3 are shown (see, e.g., Figure 4 indicated by the Examiner). In other words, there is no teaching for the person skilled in the art to break and separate the collective information provided in Bawendi into separate beads to be inserted into the cells of Glushko. Separation of the collective information of Bawendi would clearly and impermissibly frustrate the principle of operation of Bawendi, see MPEP 2143.01 (V).

In view of the above, Applicants submit that claims 1, 3-6, 10 and 11 are patentable. Reconsideration of the present application is respectfully requested.

The Commissioner is authorized to charge any additional fees which may be required or credit overpayment to deposit account no. 50-4194. In particular, if this response is not timely filed, then the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136(a) requesting an extension of time of the number of months necessary to make this response timely filed and the petition fee due in connection herewith may be charged to deposit account no. 50-4194.

I hereby certify that this correspondence  
is being electronically transmitted on

December 1, 2009

(date of deposit)

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Respectfully submitted,

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